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GENESEE FARMER.

SATURDAY, SEPTEMBER 9, 1837.

Leached Ashes as a Manure.

It appears to us that the attention of farmers can scarcely be called too often to the subject of manures, or their varieties and modes of action too fully discussed or illustrated. Constituting as they do his wealth, and furnishing the only means of raising good crops, or renovating impoverished soils, every substance that can enhance and perpetuate the fertility of his lands should be carefully tried by him, and its value estimated accordingly.

In the western part of this state, and in all new countries, such is the fertility of the soil, and the abundance of native salts and vegetable matter furnished during a long course of growth and decay, that the first series of cultivators find little use for the manures, and the expedients for ameliorating the soil, which are so necessary in the older cultivated countries. Hence materials, which are considered invaluable for these purposes in the states on the seaboard, or in European countries, are in our new settlements considered a nuisance, and wasted in immense quantities. The gradual decrease which has taken place in the annual production of wheat per acre for several years, on most of our old farms, shows, we think, that the native energies of the soil are weakened, and that the course adopted for improving soils in other places must be resorted to by us.

One of the most prominent articles used as manure in older settled countries, and sought after with an avidity that shows its real value, in ameliorating the soil, is leached ashes, a substance which as yet has scarcely created a thought among us, except it was to devise some easy method of disposing of the quantities so rapidly accumulating around our domestic leach-tubs and asheries. Millions of bushels—we might almost say loads—of this valuable material are annually wasted, when the time has arrived, as we think, that it could most profitably be used on our farms.

There is scarcely a process in farming, or an article used for substantially improving the soil, for which more decisive testimony can be found, than can be adduced in favor of leached ashes as a manure. Under the head of "Stimulating Manures," Chaptal, in his celebrated work on Agriculture, makes these remarks: "The ashes produced by the combustion of wood in our common domestic fires, give rise to some very remarkable results. Without being leached, these ashes are much too active; but after having been deprived by the action of water of nearly all their salts, and employed in this state under the name of *buck ashes*, they still produce a great effect. The action of the buck ashes is most powerful upon moist lands and meadows, in which they not only facilitate the growth of useful plants, but if employed for several years they will free the soil from weeds. By the use of them, land constantly drenched with water may be freed from rushes, and prepared for yielding clover and other plants of good kinds. Wood ashes possess the double property of amending a wet and clayey soil, by dividing and drying it, and of promoting vegetation by the salts they contain."

The Rev. Mr. Colman, in his interesting account of the successful system of farming adopted and pursued by Mr. Stimson of Galway, in Saratoga county, thus speaks of the use made of leached ashes on that farm, and the opinion of the owner on their actual value: "Mr. Stimson manures his land only once in six years, excepting the application of plaster to his corn. He allows five loads of barn-yard manure and three of leached ashes to the acre, and this is always spread upon the surface after ploughing for the first crop, and either harrowed or ploughed in by a very light ploughing. * * * He deems leached ashes a most valuable manure, and much to be preferred to that which is unleached, which he considers as having at first a tendency to force the land, but in the end to impoverish it. Next to leached ashes, he considers lime the best manure for land." Mr. Stimson's course of farming is as follows: 1st year, wheat, manured; 2d, corn, plastered; 3d, flax, rye, or barley; 4th, clover and herdsgrass; 5th, clover and herdsgrass; 6th, pasture; then manure as above and wheat.

In no part of the United States has agriculture and horticulture reached a greater degree of perfection than on some parts of Long Island; and this conversion of sandy plains into the most fertile of soils, is, by those who are acquainted with the history of that region, attributed mainly to leached ashes, purchased at New York and the various landings on the North River. Dr. Williams says, the favor with which they are viewed there is the result of experience, and adds, "I know of many thousand acres on the Island which were once too poor to produce even mulleins and rib-grass, which now cut from one and a half to two tons of clover hay per acre, and this has all been done by buying leached ashes at from twenty to thirty-two shillings per fourteeen bushels, and carting them from one to ten miles. I therefore conclude that leached ashes are a good manure, and if properly applied will be invaluable even in Western New York." In a valuable paper on this subject by E. L. Hommedieu, published in the N. Y. Ag. So. Trans., he says: "That ashes are found best to succeed on dry loamy lands, or loam mixed with sand. It is here considered as the cheapest manure that can be procured. Ten loads of this manure on poor lands, will produce ordinarily twenty-five bushels of wheat, the value of which exceeds by five dollars the expense of the manure, and the $5 pays for the expense of labor in the crop. The land is then left in a state for yielding a crop of hay of between two and two and a half tons per acre, which it will continue to do for a great number of years. No manure continues so long in the ground as ashes."

We think the opinions and experience of the eminent farmers we have given above, abundantly sufficient to establish the fact of the value of leached ashes as a manure, and also incidentally to illustrate the kind of soil on which it is most effective; and we trust the attention of farmers favorably situated for its use, or on farms which may require its application, will make a thorough experiment of its effects in the interior, and report the result. It has we believe been hinted, that as nature is made up of a system of balances, and as gypsum is found to be nearly valueless on the sea coast, while it is all important in the country, so ashes may be effective on the coast, owing to the combinations effected by the salts contained in them and those of the sea air, while from this cause in the interior they must of course be inert; but this reasoning will most probably be found entirely incorrect.

One principal reason why leached ashes are so valuable as a manure appears to have been mostly overlooked, and that is, the quantity of lime they contain. This substance is placed in considerable quantities at the bottom of the vats or leaches in all asheries, to facilitate the labor of working, and is thrown out with the ashes. This fact, taken in connection with the one that a large portion of alkaline matter must remain in all ashes after leaching, accounts for the benefit they render to wet sour soils, by neutralizing such acid, and promoting the decomposition of vegetable matter, which in such earths always proceeds slowly, while at the same time they prevent adhesion in the soil, and enable the roots of plants to seek their sustenance freely. On light sandy soils they give consistency, and by the existing action of their still abundant salts effectually promote vegetation.

The best mode of application appears to be, to mix it with the surface of the earth, where it will be slightly covered by the operations of sowing or planting. A Pennsylvania correspondent of this paper says: "I put a small handful of unleached ashes *into* each hill of corn at the time of planting, and I think this way better than to put it *on* the hill after the corn has come up. Leached ashes for this purpose are not worth as much as unleached, yet with the latter, the corn was far better than in that part of the field where no ashes was applied." A writer in an eastern journal affirms from his own experience, that a bushel of ashes is worth as much to the farmer as a bushel of corn, and advises his brethren to apply their ashes to their corn, flax, or grass, in preference to selling them at eight or ten cents per bushel.

Rotation.

We observe with pleasure, in many parts of the country, an increased attention to thorough farming particularly to raising large crops by copious manuring; but there is one essential point which is still greatly neglected, *a general and regular system of rotation.* The great advantage which might result from this practice is very strikingly exhibited in a cornfield now growing, a part of which was last season occupied with a crop of ruta baga, and the remainder with corn. The whole field was equally covered with manure, before the crop was planted. The result is, that the part of the crop of corn growing where the ruta baga stood, promises to be at least double in amount that which follows the part of the field occupied with corn last year, though it had no other advantage whatever, over the other part, than that of having been preceded by a crop properly adapted to a part of a course in rotation.

Suppose that on an average twenty-five per cent is gained by rotation, over the common practice where this is not attended to; that a farmer's annual crops are worth one thousand dollars, and that all his expenses are six hundred;—his nett profits of course are four hundred; if now his crops are inincreased twenty-five per cent. by rotation, his profits (no additional expenses whatever being in this case required,) are immediately raised to six hundred and fifty dollars. It is believed that the difference in these two modes would generally be much greater if the best system of succession was attended to; nor is this the only advantage; for while improper culture tends constantly to impoverish soil, a good course of rotation is constantly increasing its fertility.

Peach Trees from Seed.

We frequently hear the inquiry, Do peach trees raised from the stone, produce the same variety as the parent tree? In answering this inquiry, it must be observed, that the more nearly a variety approaches the natural wild state, the less liable it is to variation; while on the contrary, the finest varieties, or those which have been most improved by careful cultivation, are very liable to change, and not unfrequently produce from the seed, fruit widely different from that of the parent tree. Even the common Indian peach, so commonly supposed to be an unchanging variety, if critically examined on different trees, will be found to differ materially, and in fact there are a large number of varieties of this peach. But the circumstance of the more common

and less improved varieties being propagated from the stone, and the want of nice attention to the differences in the fruit, and also the probability of *some* resembling the parent fruit, has led to a very general opinion, that the varieties are unchangeable. A strict attention however, to the facts here alluded to, will convince every one that the only *certain* way of propagating a variety, is by budding.

Rust on Wheat.

Much has been written on this subject to explain the cause of the injury; and it is by many supposed to be owing directly and wholly to the rapid growth of the straw during the warm days of summer, which causes the fibre to become split, and the minute *fungus* which constitutes rust, then obtains a foot hold on the plant. Without attempting to establish or overthrow this theory, we proceed directly to state a few facts, which prove conclusively that the inherent condition of the wheat is by no means the sole cause. A field of wheat was sown last autumn about the first of October, but owing to the unusually cold weather, did not come up for two or three weeks after; a part of this field was low rich sandy soil, a part dry strong gravelly soil admirably adapted to wheat; and a third, a dry poor clayey soil. A part of the two latter were manured and a part unmanured. The growth of straw was of course in proportion to the fertility of the ground; but on every part of the field, the crop of grain was almost wholly destroyed by rust; and the only perceptible difference was, that those parts of the field on which the grain was most forward, furnished the best grain, though the quantity in every instance was exceedingly small and not worth harvesting. Lest any should say that it was in consequence of late sowing we may state, that the field of a neighbor a few rods distant, which was sown about the first of September, was also equally spoiled by the rust, and some of the most badly affected fields we have seen were from early sowing. Fields of all intermediate times of sowing were equally destroyed. These facts, it is true do not enable us to solve the difficulty, but they may prevent the formation of erroneous opinions, and it is only by the accumulation of facts that correct conclusions can be finally drawn.

Underdraining.

We hope no intelligent farmer will neglect this very important operation wherever it may be needed. *Now* is the best time for doing the business handsomely and thoroughly. When it is recollected that those low places which most need underdraining, consist of materials for the most fertile soils, but which are now lying comparatively useless; and further, that the practice of some of the farmers in the state has established the fact that the increased crops of two, or at most three years, are sufficient amply to remunerate the expense; certainly no one should hesitate any longer in adopting this truly profitable mode of improvement.

Radishes.

Lyman A. Spalding of Lockport, showed us very fine radishes raised in the following way. Pit sand was taken from the depth of seventeen feet, and spread over the surface of the soil six inches deep; on this bed of sand the radishes were planted.

The Onondaga Standard mentions a fine article of raw silk, produced by worms fed on the Morus Multicaulis by Mr. Thos. Yates of Skaneateles. It is the embryo production of an article that at no distant day will become one of the staple commodities of the country.

Public Sale of Fine Cattle.

We find in the Philadelphia papers a notice that on the 12th of September will be sold at the seat of Col. Powell thirty-three head of cattle, Bulls and cows, selected by Mr. Whittaker the celebrated English cattle breeder, and by the request of Col. Powell sent out to that city for sale. The sale will be by auction, and a spirited competition is expected. Among those sent out are many of the best specimens of the improved breeds of cattle in that country; animals whose names are distinguished in the Herd Book of English Agriculturists; and whose qualities and blood will not therefore admit of dispute.

We consider every importation of such cattle a national good; and trust the success of this experiment will be such as to justify a repetition. That our stock needs improving, no one who witnesses the scraggly, lean, light quartered animals found in most of our pastures, and dignified in courtesy by the name of cattle, can possibly doubt; and in such importations we have the means ready to our hands. The farmer who should introduce such a bull to his farm for the use of himself and his neighbors, would confer an essential benefit on the community around. We know there are many who sneer at the idea of improving our stock, who think our old fashioned cattle are good enough, and who speak with contempt of improved short horns, or high blood Leicesters or Merinos. Some of these individuals, however they may be inaccessable to argument, will believe the evidence of their senses, especially when the coin in their neighbors' pockets compared with their own, gives weighty testimony in favor of crosses and improvement.

That we have occasionally fine looking animals, and those that combine excellent points for fattening and milking, among our native breeds, few will be disposed to deny; and could there be any certainty that in rearing from such, the progeny would resemble the parent, the necessity for importing stock would be materially lessened. But there is no such certainty; the good qualities belong to the individual animal, and not to the breed, and therefore may not be perpetuated; while in the improved breeds the good qualities have become permanent, a part of the constitution as it were of the animal, and therefore descend undiminished to the progeny. It will besides we think be found, that in nine cases out of ten, our most promising native cattle as they are termed, are cattle that have a cross of imported blood about them, and to which the most of their valuable qualities may safely be attributed. Perhaps no stronger argument in favor of improving the breed of cattle or sheep in any country can be found, than the following facts stated at a late meeting of the English Devon Agricultural Society. The chairman in referring to some returns showing the increased produce of cattle, sheep, and wool, as regards number and quality in that county, as well as the improved weight of each animal, remarked a fact which may be unknown to some of our readers, namely that in 1750 the average weight of each bullock slaughtered was 370 pounds; while in 1831 the average was 800 pounds each. So also of sheep; in the first period the average weight was only 28 pounds each, whilst in the latter they were 80 pounds each.

Oats.—Specimens of oats from the lands of Wm. C. Dwight, Esq., of Moscow, Livingston county, have been sent to us. They are worth seeing. One of the heads had no less than 489 kernels and another 482! "I have many more of 400 and upwards," says Mr Dwight, "and could gather handfuls of more than 350 kernels to a stalk!" They are of the Tartarian variety; and from their excellence, should attract the attention of farmers. We are promised some further particulars of the crop for insertion in the "Genesee Farmer." If there is any thing in the oat line any where that can beat the above, "fetch it along."

The Batavia Advocate mentions that H. U. Soper Esq., of that town, exhibited some heads of Oats averaging 350 plump grains upon each stalk, and that one stock had 406 kernels.

Education for the People—No. 3.

If it be then advisable and necessary to enlarge the circle of common school education; to provide for the wants of the people, and by furnishing wholesome and useful excitements for the mind, guard against the poison of anarchy and demoralization; if such courses of study as we have named, or similar ones are to be introduced; it is time for those who are interested, for the people, to inquire how this can most effectually be done. They must determine the point; they must understand their rights, and their wishes in regard to them; and they must cause these wishes to be heard and respected.

Are the teachers now employed in our common schools—and it is in these that any movement towards a system of education for the people must commence—qualified to extend to their pupils instruction on the subjects named above, or extend the circle of instruction as the wants of the people require? It can be little disparagement to them as a body to answer, no. They have in general gone on in the wheel horse system the present mode of teaching requires, nor dreamed of stepping beyond the circle worn by their predecessors. They have passed an examination—they have satisfied the requirements of the law—and what more can consistently be required of them. There are however exceptions, many honorable exceptions to these remarks;—there are teachers who are qualified to extend to their pupils instruction on almost every topic; and who are anxious those intrusted to their care should reap the full benefit of all they can do to develope, encourage, and direct the intellect. They are students of nature in the best sense of the term, and take a pleasure in revealing its mysteries and illustrating its appearances to the inquisitive mind of the delighted young. Would that all were such—that all teachers thought as much of the beautiful and instructive volume of nature, and could interpret it as readily as they can their Daboll or Murray. To expect this would however be unreasonable, since men are rarely learned or good beyond the requirements of the law; and teachers cannot be supposed to form an exception in this respect. If men are what the law requires them to be, they are generally satisfied.

The first step then in providing an education for the people is to educate the teachers. Those who instruct must themselves be instructed in the first place; and to have this accomplished the people themselves must act. Whatever they in a correct way demand, they will receive—whatever they require their teachers to be, such they will have,—and if the authority of the law is required to carry out their wishes, let them but will it, and the necessary laws will speedily be recorded on the statute book.

To provide teachers of the proper stamp, such as those who would advance the standard of education demand, and which we trust they will not rest satisfied without, our academies must become schools where the natural sciences are taught in a way that shall interest the pupil; and where the useful shall not be so frequently sacrificed to the ornamental. Most of our young men employed as teachers qualify themselves at these places, to teach according to law; and of course most of them are utterly unacquainted with what the law does not require. A knowledge of the natural sciences is consequently overlooked in things of far inferior moment. Botany, Entomology, Mineralogy, the chemical analysis of plants and soils, the mechanic arts, and the ultimate connection of all these with agriculture are apparently forgotten.

How many of our academies have cabinets of specimens to illustrate the above subjects? and if they possess them at all, are they equal to what the pupils of a common school would collect in a few weeks, if a class was formed for each of these departments, and the teacher was qualified to arrange and classify.

In these short notices we have only hinted at what we think an education for the people should be. What has been done we wish not to pull down—we would enlarge the base, and add to the superstructure, as the wants of the occupants demand. Let the people think of these things—let them determine what is needed. Let our

colleges and academies second the advancing movement, and if the assistance of the legislature is required to establish lyceums, form cabinets, and collect specimens, let it be boldly asked. Money could not be better spent—the future will show this.

Crops in Albany County.

We make the following extract from the letter of our friend BEMENT of the Three Hills Farm, Albany, which accompanied his advertisement of *Improved Stock*, published in this number of the Farmer, and to which we invite the attention of those who wish to improve their breeds of stock:

"The season, although wet and cold in the early part, which very much retarded our operations, has been so far, very auspicious to the farmer. My hay and oat crop was of good quality and yielded well. My corn was not planted until the 3d of June, which was at least two weeks too late, still should the frost keep off, I shall have a good crop. Potatoes have run very much to vines, from which we fear the crop may not turn out as well. There has been an unusual quantity planted, and should the crop be a middling one, our supply will be abundant. Buckwheat, of which large quantities have been sown, promises an abundant harvest.

"My root crops, such as Ruta Baga, Carrots, and white Turneps, never looked better, or promised greater returns. In short we have reason to be thankful, so far at least, for a prolific and bountiful season."

The Silk Culture.

We publish a communication to-day from WM. SHATTUCK, in which he alludes to a new Mulberry he received from the Messrs. Prince, and which he thinks, if perfectly hardy, will prove of far greater value than either the Morus multiculis or Italian. Will Mr. Prince furnish us with the name and description of the Mulberry sent to Mr. S.

In relation to the native Silk Worm alluded to in the same communication, the *Silk Culturist* says:—"There are several species of spinning caterpillars, which make cocoons of a large size, and among them the silk worm alluded to above. It is known among naturalists as the *Attacus Cecropia* of Linneus, a cut and description of which may be found in our number for April, 1836. It has hitherto been considered worthless on account of the difficulty of domesticating it."

ANTIQUITIES, &c.—Any information respecting the mounds, fortifications, and other relics of the ancient race, throughout the Genesee Valley or Western New York, will be received with pleasure, if addressed to the Rochester Daily Advertiser or Genesee Farmer. The attention of the many intelligent gentlemen who are conversant with facts on this subject, is respectfully requested.

Spring Wheat

Has already superseded the winter species in Lower Canada, and in the northern section of the Union; and such are the casualties which the winter crop has to encounter, from the Hessian fly, from hard winters, and from the grain worm, for the latter, we have no doubt, will soon extend itself over the whole country, that we apprehend the farmers of the northern and middle states, at least, will soon find it advantageous to resort to the spring species of this grain for their main crop. Under this view of the subject, we think we shall be doing a service to the readers of the Cultivator by detailing what we know in relation to different species of Spring wheat.

The *triticum æstivum*, or spring wheat, is said to be a native of southern Siberia and Sicily, whence its culture has been gradually dispersed through Europe and America. It ripens ordinarily about the same time as winter wheat, when sown very early; but when sown later it is fit to harvest in ten or fifteen days after the former. The following, among other varieties, are described in the books.

1. Having a red spike, or ear and grain.
2. Red spring wheat, with a white ear.
3. A white spike and grain. These three are all beardless varieties, of the same species, are not easily affected by moisture, and give a flour nutritious, but not so white, or in so large proportions, as the winter varieties cultivated among us.
4. *Siberian spring wheat*, probably the variety cultivated in Oneida, and already noticed on the authority of Dr. Goodsell. It is bearded.
5. *The Egyptian*, or *many spiked wheat*. Loudon terms this a variety of winter, whereas with us it is a spring wheat. This is remarkable for its uncommon productiveness. The grains, however, do not yield so large a proportion of flour or meal as other species or varieties, and the flour is said to be scarcely superior to that obtained from the finest barley. It has been introduced in our country to a considerable extent.
6. *Spelt wheat*, noticed under correspondence. Sown in spring.
7. *Italian spring wheat.* This is the variety which was introduced by Mr. Hathway, of Rome, and which seems to have proved congenial to our soil and climate wherever it has been tried. It is bearded, the product is abundant, and the grain makes excellent flour.

There are besides those we have enumerated, several other varieties of spring wheat, with which we are not acquainted, as the Black Sea and Tea Wheat, which are probably mere varieties, which have been modified by climate and culture.

The white, or spring or summer wheats, flourish best on light soils. The ground, however, requires to be well pulverized. A good preparation is a clover ley, ploughed in May, and sown the 15th in this latitude, so as to escape the grain worm. The straw of spring wheat is generally shorter than that of the winter varieties, the berry less plump, the flour less abundant, and darker, but equally nutritious.—*Cultivator.*

The Grain Worm,

Though of extremely diminutive size, threatens to become the most formidable insect enemy that we have ever had to encounter. Though scarcely perceptible, to the naked eye, such are its numbers, and such its voracity, as to destroy annually thousands, if not millions worth, of the great staple of life.—And we are persuaded its ravages are not confined to the wheat crop, but that it preys upon other grains, *which come into head during the existence of the perfect insect, or fly.*

We have seen many preventives recommended, and have tried most of them without success, as various preparations of the seed, applying lime and salt and ashes, when the grain is in ear, &c. We have become convinced too of the fallacy of Bauer's heory, as noticed in the first volume of the Cultivator, that the insect is transmitted through the sap of the plant. Neither steeps nor topical applications will serve any purpose. Nothing, in our opinion, will protect us from this puny enemy, but sowing early in autumn and late in spring—so that in the first *the grain may became indurated and hard before the fly makes its appearance*, and in the latter so that it *may not come into blossom until after the fly has disappeared.* The insect has progressed from forty to sixty miles a year, south and west, and has reached Maine on the northeast.

From the observations we have been enabled to make of the habits of the insect, we think the fly makes its appearance about the last of June, and continues to deposite its eggs till the 20th or 25th July, making its principal deposites in the first half of July, when late sown autumn, and early sown spring wheat, are in the blossom or milk. Rye sown late in autumn, and oats and barley sown early in spring, are believed also to have suffered materially from the worm; but of this fact we are not yet sufficiently certified, though the worm is often found in these grains. The fly is small and slender, of an ash color, and may be seen towards evening in great numbers on the heads of the grain. It punctures the calix or envelope of the kernel, and deposites its eggs within it, upon the young grain in the manner that the pea fly punctures the pod, and lodges its egg in the young pea, where it may often be detected when the pea is gathered for the table. No topical application, whether liquid or in powder, can reach the ova or insect, within the envelope; and even if the outer surface of the grain is covered with lime, it forms no obstacle to the deposite of the eggs—indeed it has been found that the worm is not destroyed by dry lime, though rolled in it.

We sowed our Italian spring wheat on the 5th of May; and on the 15th July it began to head out. We watched it for a week or twelve days, and until we saw no more of the fly. We found on subsequent examination, that which first came into head, had from three to five insects in an ear, while that which developed the head latest was generally perfectly sound and untouched. We have examined several fields of spring wheat in Washington county, sown from the 16th to the 23d May, without being able to find any thing of the worm, though the winter wheat there was nearly destroyed by it. These facts seem to warrant the conclusion, that if wheat is sown, in this latitude, after the 15th or 20th May, it will escape the worm.

As the subject is one of deep interest to the whole community, we are desirous of collecting all the information we can, as to the habits of the insect, the first appearance and the disappearance of the fly, the period which the insect exists in the larvæ, or maggot state, and also in the chrysalis. By collating and comparing these facts, we indulge the hope that something may be done to mitigate the evil. We invite post masters and others to aid us in the investigation, by communicating answers to either or all of the following queries:

1. In what year did the grain worm first make its appearance in your neighborhood?
2. At what time in the season was the fly first noticed, and what was its latest appearance?
3. What per cent damage has it done to the wheat crop the present year?
4. Has early sown winter wheat escaped its ravages?—and if so, at what time was it sown?
5. Has late sown spring wheat escaped its ravages?—and if so, at what time was the seed put in the ground?
6. Have barley, rye and oats been attacked by the worm?—to what extent?—and if yes, at what time were the crops severally sown, or at what time did they come in head?
7. It is believed that the insect changes from the larvæ, or maggot, to the pupa, or chrysalis state, and thence to the imago, or perfect fly; and that in the larvæ it casts its skin, like the silk worm. Can you communicate any facts in confirmation of, or in contradiction to, these suppositions?
8. What are the extreme points, west and south, where the worm was discovered in 1836, and also in 1837?—*Ib.*

Green's Straw Cutter, &c.

A correspondent, who dates Fauquier county, Va., and who "is a feeder of nearly 200 head of cattle, upon the *stall and indoor* plan," asks our opinion respecting the application of horse power to Green's Patent Straw Cutter,—and what quantity of hay or corn fodder, it will cut, with such power, in an hour.—We doubt weather this machine, as now constructed, would perform much more if propelled by horse, than it now performs by manual labor. Little can be gained by accelerating its motion; and the strength of a man propels it without fatigue. A very extensive and intelligent farmer, who visited us while writing this, assures us that two smart men may cut five tons a day, of hay, with Green's Straw Cutter, by manual power.

We have heard highly commended the horse power establishment of a gentleman upon Staten Island, in which the power is applied, at pleasure, to cutting hay and fodder, upon an improved machine, —to grinding grain for family and farm use,—to crushing corn cobs and corn, grinding apples or roots, sawing, &c. We have solicited a plan and description of the building and machinery, the cost, &c., from the intelligent and liberal proprietor; and hope to have the satisfaction, ere long, of laying them before the readers of the Cultivator. Such an application of horse power, upon the farm, has been long a desideratum; and we cannot question the willingness of the proprietor to win the gratitude of his countrymen, by making the communication solicited.—*Ib.*

COMMUNICATIONS.

Smut.

Three years since hearing much of the skinless oats, and believing that if their growth should be found practicable, they would be for many uses preferable to the common oat, I procured a quart or two of the seed at Albany, sowed them on a favorable piece of ground and obtained a fair yield of oats of good quality, with the exception that the heads were nothing but smut. Last year I sowed this product on a well prepared piece of ground, and soon after the heads came out of the sheath I perceived that a large proportion of the whole was smut. It was gathered, but the quantity of sound oats was so small, that I did not deem them worth thrashing, and determining to discontinue raising them, I fed them out on the straw to my calves and sheep. The field on which the oats were last year sown, was, with the exception of that piece, in barley, and intended for wheat. The whole ground was manured from the yard, the oat patch and all, and sown with wheat of the white flint kind, and entirely free from smut. The wheat over the whole, was somewhat winter killed; not worse, however, on the oat ground than elsewhere; yet when it eared out I was surprised to find a large part of the growth on that part was smut, and though now and then a head may be found on that growing after the barley, yet the proportion on the oat ground is as ten to one. To what cause is this singular result to be attributed? The smut was not on the wheat sown; it must have arisen from some other source. Did the smut of the oats falling in such quantities on the ground impregnate the wheat seed or plants that followed it?—or was the result the natural consequence of the unfavorable weather of the fall which injured the young wheat materially, or of the wet weather and low temperature of the present season. I incline to the first opinion, and shall find in the occurrence a new argument against allowing the presence of smut in any form, unless we intend to suffer serious injury to our crops in consequence. A. B.

Oats.

There seems to be a general agreement in the Journals from all quarters, that the crop of oats the present year, promises to be an extraordinary one. As a proof that there is some foundation for this opinion, I will state that yesterday I selected from a fine field of the English black, or horse mane oats, a root from which grew eight stalks averaging five feet in height, and on two of the heads of which I counted 318 and 466 kernels. Some of the others might not have been quite equal to these, but I presume they would have averaged 300 each. In one head taken from the same field I counted 433 kernels. Two thousand four hundred kernels I consider a pretty fair yield from a single seed. If any of your Genesee farmers can tell a bigger oat story than this, let them. M.

Onondaga Co., August 17, 1837.

New and hardy Mulberry.

Friend Tucker,—Last winter, observing in the advertisement of Wm. Prince & Sons a new kind of Chinese Mulberry described by them as possessing all the advantages of the Morus multicaulis, with the important additional advantage of being sufficiently hardy for the most northern latitudes, I enclosed to them a five dollar bill requesting the value in that kind of mulberry, and received in return 17 grafted trees of one years growth, which are all living and doing well; and if they really possess all the desirable qualities of the Morus multicaulis, and will stand our Siberean seasons, I would not exchange them for 10,000 of the Multicaulis, or twice 10,000 of Italian Mulberry. But not seeing any notice taken of this kind of Mulberry, among the various articles on the subject of the silk culture, I feel anxious to hear something further on the subject. I also noticed in the 31st No. of the current volume of the Gen. Farmer, an extract from the N. Y. Star, giving a very interesting account of a native Silk worm. This I think must be a hoax; but if it is true, I hope soon to see it confirmed in this valuable journal; and if erroneous it ought to be refuted. Thine truly,

Wm. Shattuck.

Randolph, 8 *mo.* 25, 1837.

Rust in Wheat.

Mr. Tucker—The disastrous effect of *rust* in wheat, makes it a subject of deep interest to the agriculturist and the economist. Its appearance on the stalk gives its name. But what is it? is it a disease? is it a fungus which consumes the energies of the plant? is it an effect? or is it a cause? What is the remedy? or is it irremediable?

An examination of the stem shows that *it is split open* for a short distance in a multitude of places, and that the exudation of the juice of the plant and its adhesion to the surface produces that appearance called *rust*. It is therefore an effect of another and great cause.

Let the farmer examine the stalk where rust appears and ascertain the state of the stem. If the stem is burst open he will then enquire for the cause. Will he not find that the rust prevails upon the thrifty wheat and in the most exuberent fields? The middling wheat and the poorer, have escaped the rust. Next, he will consider the state of the crop and of the weather, when the rust appears. Will he not find it to follow the rain, the heavy dew and the warm weather, which cause the wheat to grow in the rich soils with great rapidity? Is not the *sap* then produced in greater abundance than there is strength in the vessels to sustain, and does not the excessive power of the sap burst the vessels and pour the sap upon the surface, and produce an *effect* which to the superficial observer seems to be the cause of the disastrous result.

Remedies. These will consist in occupying the lands of second quality with wheat; or in sowing the richest lands with a much greater quantity so that each stalk may receive less nutriment; or in sowing wheat at a later period in the autumn so that it shall not acquire so much power; or in feeding it down in the spring so that it shall advance more slowly to perfection. Other preventives may occur to the intelligent farmer.

As the vessels seem to burst in many places there is probably not any lateral communication between them; so that the exudation of sap in one place does not relieve the pressure in other places. It is well known that the motion of sap in vegetables is not precisely like the circulation of blood in animals. Obs.

Sharon, Michigan.

Mr Tucker--Having taken some pains to obtain correct information respecting the improvements and the amount of several kinds of grain cultivated in the town of Sharon, Washtenaw county, Michigan, this present year, we send you the result of our inquiries for publication in the Genesee Farmer. There are 4,450 acres of improved land, not including the land broke up this year and now preparing for a crop of wheat. It is expected that there will be more wheat put in this season than last. There were 2,451 acres of wheat, 550 do. of corn, 755 do. oats, 42 do. barley, 130 do. potatoes, all of which except 25 acres has been broken up within 5 years. The wheat is of a superior quality as to plumpness, and fair growth of straw. The calculation is that it will yield from 15 to 25 bushels to the acre. Oats are very large and the other crops are promising. Yours, &c.

L. Hull,
N. B. Semm.

Sharon, August 23, 1837.

From the Marklane (London) Express.

System of Cultivating the Mangel Wurzel, *As practiced on the farm of Preston Mains, in East Lothian.*

BY G. KIRK, RESIDING AT PRESTON MAINS, N. B.

From the circumstance of the mangel wurtzel having been under cultivation in this country for a great number of years, and its properties so well, and so generally understood, it will be no news to the great majority of farmers of the present day to be told, that it is a vegetable possessed of qualities of the greatest utility to every one, at all interested in the management of live stock, but more especially so to the dairy farmer, as its laxative tendency will in all probability prevent its being extensively used in the fattening of live stock; but although a vast portion of the agricultural community may have been made aware of its qualities, through the medium of the agricultural and other periodicals of the day, which now daily emanate from every city in the empire, and carry to every corner of the land a knowledge of the arts and usages of civilized life, and steadily disseminate that seed, the fruit of which will at no distant day be reaped, in the shape of a universally civilized intellectual Britain; yet it may be, that a knowledge of the most proper way of cultivating it, is not so generally diffused. Be it our task then to supply this information.

Before entering more immediately upon a description of its tillage, it may be proper to remark, that the mangel wurtzel seems to thrive best, and to attain the greatest degree of perfection on that description of soil generally known in Scotland as "good turnep land;" that is, a rich mellow loam; soils of an extremely cohesive or light description, are unfit for this root; but, good crops have nevertheless, been raised on the soils of medium quality, but it is in general grown on the superior portions of the farm.

The soil on which this sort is intended to be cultivated, should be turned over if the season admit, towards the conclusion of autumn, or as early in winter as possible, in order that the soil may be subjected for as long a period as possible, to the subduing influence of winter frost. About the end of April or beginning of May, preparations should be made for seed time, the seed being in general put in about the middle of the month; and, here no expense should be spared, and no effort unexerted, by repeated ploughing, harrowing, rolling, and hand-picking, to effect a complete pulverization of the soil, and a thorough eradication of root weeds, as the fate of the future crop, in a great measure, depends on the perfect performance of these processes.

After the soil has been completely pulverized and cleaned, the drills or ridgelets are drawn off by a double turn of the plough, or what in farming phraseology is styled a "bout," to about 27 inches apart. The manure (which is administered to this, in a somewhat greater portion than to the generality of green crops) is then carted in, and spread by boys or women in the intervals of the drills, and covered in by reversing the ridgelets. The common turnep-sowing machine (the hind roller being tied up or removed) is then sent over the drills, the spouts of which make a slight excavation in their centre, which serves as a guide to the planters, who having received a quantity of seed, which is carried in an apron or bag suspended before them, proceed as follows: being provided with a piece of wood ten inches in length, which is the distance generally kept between the plants in the drills, and which is placed in the excavation made by the spouts of the turnep-sowing machine, three of what are generally called seeds are placed at both its ends in the ground by pressing them down with the finger or thumb, but *de facto*, what is generally called a seed, is just a cluster of capsules or seed-vessels, each enveloped with its particular calyx or flower cup; to this circumstance in a great measure is to be attributed, the frequent failures of this crop, moisture being precluded from reaching the seed, on account of the hardness of the calyx or capsule, and for this reason, *seeds should never be placed more than one inch below the surface*, in order that they may have the full benefit of the midnight dews, and genial showers of early summer. When placed in the ground, as already described, the piece of wood is pushed forward, until the end next the planter is immediately above the seeds last planted, and a similar num-

ber of seeds are put in at the further end, and so on till the process of planting is completed, after which the land should receive a slight rolling to level and consolidate drills. After the plants have been about four weeks above ground, they should be singled out with the hand, in which case the strongest plants should be left in the soil, and the weaker ones removed, and blanks (should any appear) may be made up with the extra plants; and during the season the intervals between the drills and plants should be carefully kept free from weeds, by repeated horse and hand-hoeings, till the leaves of the plants begin to approximate in the drills, and to form a leafy canopy over the intervening space, after which they will of themselves, by intercepting the light, effectually exclude all rival vegetation; and, before leaving this part of our subject, we beg to impress the farmer with a sense of the necessity of his performing these hoeings, whenever weeds appear, as the condition of the crop of mangel wurzel, and the wheat one by which it is in general followed, in a great measure depend on their frequent and effectual execution; for every farmer must know, that by frequent stirrings of the soil, and by extirpating weeds, the growth of plants is promoted in a great degree, for by keeping the soil around plants in a loose state, we increase as it were the sphere of action of their roots, and thereby enable them to obtain their food in greater quantity, and by extirpating the natural occupants of the earth, we give the cultivated crop the benefit of that nourishment, which would fall to support the spontaneous products of the soil; in consonance with this theory, we invariably find, that crops growing on a soil which is kept free from weeds, and well wrought, are always superior to those which may be placed in opposite circumstances. But to return from this digression.

When arrived at maturity, which in ordinary seasons will be about the end of October, the leaves should be cut off as close to the body of the root as possible, without touching the body of the root itself, as if the part from which the leaves shoot out be entirely removed and the root laid bare, a nights frost will entirely ruin the crop; making an incision into the body of the root, therefore, shou'd be studiously guarded against. But previously to removing the leaves altogether, the lower ones for a considerable time previous to removing the crop from the ground, may be wrenched off with the hand, and given to cows in the house; and here, a great benefit is derived from the mangel wurzel coming in at that period, when the chillness of evening usually renders it necessary to house milch cows for the night, for which (and the same description applies to the roots) they form a superior species of food, as they increase the milk, without imparting to it that acid taste which turneps do, and when at last it becomes necessary to remove the leaves of the whole crop, with a view of having the roots stored, they may be carted home, and deposited in any convenient spot out of doors, and in this state, unprotected from storms, they will keep without sustaining any material injury for weeks, nay months, and are devoured to the last by milch cows, even when almost putrid, with the greatest avidity. We think it right to warn the farmer against beginning too early to remove the leaves, as we have invariably found that the roots never increase in size after the bulk of their leaves are removed.

We come now to the consideration of a very important portion of our subject, and that is the manner of preserving the roots throughout the winter and for this purpose the longitudinal form of the mangel wurzel, affords considerable facilities. The system of storing uniformly practiced by us, is much the same as that pursued by gardeners in the storing of carrots. We form them into large heaps, about six feet wide at bottom, gradually tapering as they ascend, till a width of from two to three feet is attained at top and a height of five, and the heaps of course made of any convenient length.

After the heap is finished, it is thatched with straw to about six inches in thickness, and roped down, which is found sufficient to prevent injury from the severest frost, and to preserve the roots fresh and juicy, till an advanced period of the summer season. We have likewise stored them in houses, and have found this system to answer equally as well as the first; but when stored in any quantity in-doors, the heap should be intersected with air passages (which are easily formed with the roots themselves) to prevent heating.

As hinted in a preceding paragraph of this paper the mangel wurzel has a tendency when given in any considerable quantity, to produce laxity in cattle: in using it, therefore, in the fattening of live stock, we studiously avoid giving in large quantities by itself; and, aware that cattle after accustomed to it will forsake every other description of food for its sake, it is never allowed them till the spring months, and they are well nigh fit for the shambles; it is then given in conjunction with one or other of the common varieties of turnep, and we have invariably witnessed a rapid improvement in the condition of the animals after receiving it; and so fond do they appear of it, that, although mixed indiscriminately with other descriptions of food, it is carefully picked out, and when given at stated periods, they seem to be aware either through instinct, or by the cravings of appetite, of the arrival of the period of feeding, and invariably at the wonted time, collect in a group and fix an eager, anxious gaze, on the spot from whence they expect to be supplied with their darling sustenance.

But it is chiefly as food for dairy cows that the mangel wurzel is adapted, and as such is superior to every other description of winter food, of which we are aware. It is a material point with the farmer, to procure food for his cows that will not impart acidity to the milk; and mangel wurzel is the only succulent winter vegetable, which possesses this quality, and doing so constitutes a most valuable species of food for cows at that season when succulent food possessing the above essential quality can never be obtained.

The foregoing remarks being a description of a system of cultivating the mangel wurzel, and using it as food for live stock, which has been attended with eminent success, we can confidently submit them to be acted on by all who feel desirous of cultivating this valuable vegetable.

From the Toledo Gazette.

Wheat Growing in Michigan.

WHAT THINK YOU OF THIS?—A gentleman recently from St. Clair Co. says he has viewed a field of wheat in the vicinity of the river St. Clair, Mich. comprising *eighteen hundred acres*, belonging to Mr. Jesse Smith, formerly residing in Jefferson Co. N. Y. The wheat, he says, was put in, in good order, and is remarkably stout. When he saw it, it was nearly fit for harvesting. This is the largest field of wheat we have yet heard of and we doubt not that the day is not far distant when we shall hear of larger fields on the great western prairies. If all the speculators who have purchased government lands in the West, would adopt Mr. Smith's example, our resources would soon be developed. If this crop is equal to the average this season, it will yield at least 30 bushels per acre, and equal to 54,000 bushels. Suppose the value to be one dollar per bushel, $54,000; deduct then one-fourth for preparing the ground, seed, harvesting, and thrashing, &c. leaves a net gain of forty one thousand five hundred dollars. We think it is a fixed principle among millers where they are prepared to do business on a liberal plan, to give in return for every five bushels of wheat one barrel of superfine flour. Hence the price must be reduced below $5, or our estimate is nearly correct. By the same rule $2,250 would be the net gain for 100 acres. Notwithstanding the immense tracts of lands purchased upon the western prairies, there are yet millions of acres unsold, that must come into the market at government prices.

The cost of 100 acres, is	$125
The fencing, we are informed, is equal to	125
The first ploughing,	300
100 bushels of seed, say at $1 per bush.	100

Now suppose this estimate to be too low, we will allow $350 for the sowing, dragging in, harvesting, thrashing, interest, &c. and there yet remains to the cultivator a net again of $2,000. Your ground is then paid for, fenced, cleared, ploughed, and in readiness to be again ploughed at a trifling expense, preparatory for the next crop, from which they may expect a much greater yield. This would be speculating to some purpose.

It will be said the price of wheat must be reduced. It will be seen we have already made a liberal allowance, but to meet this exigency, suppose we reduce our proposition one half. In such an event, our net gain is $1000 at least, because, by the same rule, all the expenses above enumerated, with the exception of the purchase of the land, will be reduced to one half also. We would then ask, what business can the enterprising capitalists embark in, that is reduced to so great a certainty? We are aware it will be said by some, who have large capitals at their command, that it is a petty business—too small for us to embark in. Not so. We presume Mr. Smith has not devoted to this field of 1800 acres, nor will not, more than a fourth, and perhaps not more than a tenth, of a year.

Planting Trees.

He who plants trees upon his paternal estate, repays a debt to his posterity which he owes to his ancestors. A gentleman whose lands were more extensive than fertile, used to plant 1,000 trees on the birth of every daughter, upon his waste grounds—which were on an average worth one pound each on her coming of age; thus enabling him to give her a fortune of 1,000*l* without any extraordinary economy on his part—the regular thinning of the trees at proper seasons, with barking, &c., paying off all the current expenses, besides yielding him a small rent for the land. In the year 1758, ninety-two fir trees were planted upon a piece of ground, abour three-quarters of an acre in extent. The land was waste and poor; no extra expense was incurred, and no further attention was paid to the young trees. In 1813 they were cut down, and yielded 90 tons of timber, then worth 4*l* per ton, giving a round sum of 360*l*, which was equal to a rent of 6*l* 19*s* during the intervening 55 years. Can a more convincing proof be given of the facility with which a man may save a fortune for his grandchildren? It is, indeed, long to look forward; but who is there that does not extend his family hopes much beyond that period? In Yorkshire, very recently, 5,000 oaks were cut down, which yielded the sum of 100,000*l*; and as recently, in Somersetshire, the timber of an estate of 2,000 acres was refused to an offer of 50,000*l*. Even in Scotland, a piece of ground not worth 30*s* per acre for agricultural purposes, was planted with sycamore, and at the end of sixty years the trees fetched such a sum as paid 14*l* per acre per annum during that period. There are many ways, however, of making land, apparently fit for nothing else but planting, yield even an immediate profit, by a very simple process; for it has been ascertained that a pound of turnep seed sown after harvest, upon an acre of light, sandy, and gravelly land, which had been worn out by over ploughing, and ploughed in after two months' growth, leaves, roots, &c., had as fertilizing an effect as could have been produced by twenty-five loads of manure upon that quantity of land. The practice, we believe, has not been uncommon in some parts of Surrey.—*The Economist.*

E. P. ROBERTS—Respected Friend—Apprehending that any experiments or information relative to raising the Morus Multicaulis or new Chinese Mulberry tree would be acceptable at this time of general inquiry about it and raising of silk, having found by six years experience, that the above mulberry does not stand our winters well, if raised on rich land, especially in low frosty situations; in such places, their growth are apt to be young and tender, and consequently, easily affected by frost, when left exposed to it—I therefore, in the spring of 1836, planted some of said trees in a high, gravelly, clay soil, of poor quality. On this during that season, the trees grew slowly, but even the latter growth was ripe and fine. I left them out last winter for trial, and had the satisfaction to find last spring, those had passed the winter without injury by frost, even to the ends of the twigs, and are now growing finely.

By the success of this experiment, I was encouraged to plant last spring, one and a half acres, and am preparing ground for planting two acres more next spring, with the said Mulberry Orchard, for feeding the silk worms.

I have also about 20,000 mulberry trees now growing, and from present appearances, I think they will have fine roots by autumn, and be 3 to 6 feet high. With these I propose filling the orders of my customers, with care and at moderate prices.—*Farmer & Gardener.*

Artificial Grasses.

By this term we mean those few grasses which farmers cultivate by saving their seed, preparing their land for, and cultivating carefully. Of the many kinds of grasses which nature has so liberally spread around us, but a very few have demanded the attention of the cultivator; and yet there are undoubtedly a great number left to flourish in a a wild state, as good, if not better than those now in demand. It is a fact as indisputable as the laws of nature, that every kind of grass will not flourish in every kind of soil; but that different soils are required for different species. We do not believe that the best kind of grasses are cultivated in our meadows or swampy lands that can be. Indeed, but very little attention has been paid to these kinds of lands at all.

They are considered to be of little value, and of course not deserving much trouble. When the waters have subsided sufficiently to allow vegetation to take place, Nature, who suffers very little land to bear nothing at all, starts up something or other. The kind of plant which first springs up, is some hardy species, perhaps not worth much to man, but serves as a sort of pioneer for something better hereafter.

The waters subside further, or the land accumulates by the annual deposition of vegetable or other matter, and the soil is more compact. A different species works in, and thus by little and little a change is effected, until man begins to take advantage of the crop, and converts it to his own profit, or to administer to his wants or his comforts. Now in all these things there is much wisely left for man to improve. Something to stimulate his mind and prompt him to action and industry; without which he is a miserable being. Here is a hint given him by nature, to take hold and help and hasten the improvement. It calls upon him to study and to learn, and to elevate himself on the scale of intelligent being. Until recently, very little indeed has been done in regard to cultivating or improving grasses in this kind of land.

A few have taken pains to sow the fowl meadow grass in some places, and Mr. Robinson of Portsmoth, N. H., has suggested the plan of planting the striped or ribbon grass in boggy lands, which some have done with good success as yet. Our friend J. H. J. of Peru, sometime since called the attention of farmers a species of grass which we belive to be the *water meadow grass*, (*Poa Aquatica*,) which is a hardy grass, yields a good burthen per acre, and is readily eaten by most animals. Whether any one has troubled himself any further about it we know not. We have noticed some grasses to grow better in dry seasons, than in moist ones. Of these, common barn grass, so called, is one. This grass is anathematized by our farmers as a troublesome weed. It will have a being and grow somewhere in spite of them. Has any one given it a fair chance by way of cultivation? It resembles millet in appearance, and can any one say that it is not a better crop for cultivation than that article? Who can say from fair trial what it will yield per acre? What its qualities are as a fodder, and whether it is worthy better usage or not? If we are right in the suggestion, that it will flourish better in a dry season than in a wet one, it certainly has one quality which may be of value, and render it worthy of having one field in the farm, devoted exclusively to its service. A few experiments which cannot cost much, and a little observation, will be of immense service to the farmer yet.

N. B. Since writing the above, the following has come to hand in the Albany Cultivator.

"*Relative value of Grasses.*—Dr. Muhlenburgh, of Lancaster, Pa., thus ranges the grasses he cultivated, their good quality being in the order in which they are named: 1. Tall meadow Oat grass,* (*avena elatior.*) 2. Tall fescue grass, (*Festuca elatior.*) 3. Meadow foxtail grass,* (*Alopecurus pratensis.*) 4. Meadow soft grass, (*Holcus lanatus.*) 5. Timothy or meadow catstail grass, (*Phleum pratense.*) 6. Rough cocksfoot or Orchard grass, (*Dactylus glomerata.*) 7. Rye grass,* (*Lolium perenne.*) 8. Sweet scented vernal grass,* (*Anthoxanthum odoratum.*) 9. Reedy Cinna, (*Cinna Arundiuacea.*) 10. Broom grass, (*Bromi,*) two species. All these, (continues the Doctor) should be cultivated with timothy in our bottom lands or meadows, which can be *watered* For upland meadows he recommends clover, lucern and sanfoin—the first is the best preparation for a good wheat crop. Dr. Muhlenburgh recommends a free intercourse among intelligent men, with a view of promoting agricultural improvement.

"Agriculture,' he remarks, 'will, I hope, be our chief study, and be the means of raising the Americans among the first nations of the earth.'"

The Timothy or meadow catstail grass, has been mentioned above. This is the same grass which we cultivate by the name of 'Herds Grass,' or more more properly Hurd's grass, it having been brought into notice, we believe by Timothy Hurd.

Many of our readers may not be aware that this grass will grow on lands that are part of the year under water, yet such is the fact. It will grow in that kind of soil which has sufficient consistency to be compact when the water is off in the summer. It is not a little remarkable that when it grows in a moist soil it has a fibrous root like other grasses, but when it grows in a very dry soil it has a bulbous root like a little onion; a provision of nature to supply it with moisture or nourishment in a dry time.—*Maine Farmer.*

* Exotics.

Effects of Agricultural Bounties.

It has been stated in several of the papers published in the state of *Maine*, upon an estimate made by an agricultural gentleman, that the product of *wheat* in that state this year, will be about 1,600,000 bushels, equal to 320,000 bbls. of flour. Last year, it is stated on the same authority, that Maine imported 150,000 bbls. of flour, and that she will this year have a considerable quantity to export. This favorable change in the product of this article has been brought about thus suddenly by the adoption, by a late legislature of that state, of a law granting bounties to the raisers of wheat. Such has been the avidity with which the farmers have availed themselves of the provisions of the law, that it is calculated the amount of bounties which will be drawn the present year from the state treasury, will not be less than $150,000. This, at the first view, will appear a very large sum; but when the immense benefits which will probably accrue to Maine are properly considered, they will be found to outweigh every objection that could be raised on the score of the abstraction of so much money from the coffers of the state. Heretofore, Maine has had to rely upon other states for a large portion of the breadstuffs consumed by her people; but now, under the influence of a wise and salutary enactment, in a single year, she presents to her sisters of the confederacy, the singular and most creditable example of becoming a rival exporter. This state of things, while it is gratifying to that generous pride of state which each of her sons will doubtless feel, will greatly tend to increase individual and public wealth. It has long been the policy of the eastern states generally, to stimulate agricultural industry by similar inducements, and the good effects are visible in every direction throughout that region of frugality and industry. With soils and climates by no means favorable to the full development of vegetable growth, the condition of their agriculture is very far in advance of that of most of the other states. By judicious management of the resources within their possession—by strict observance to the making and preservation of manures—by the creation and support of agricultural societies—by the indefatigable exercise of a hardy industry on the part of the people, and by the fostering and paternal care of the government, all those difficulties arising from lands measurably sterile, a sun inauspicious, and seasons of short duration, have been overcome. With these examples—with the rich fruits of their happy effects—before them, should not the legislatures of the other states, where Providence has been so much kinder, take counsel and follow in the footsteps of their eastern brethren; and above all, should not the *people* bestir themselves in the good work of reformation. It is useless for the husbandmen of our country to call upon legislative bodies for aid without first setting an example to show that they are worthy of it. If we are asked, what are the incipient steps to be taken by the people? We answer, first, that agricultural associations should be formed in every county, whose population will support one, and in addition to these, *general state* societies should be also formed, and when sufficient impetus shall have been given to those preliminary measures—when a spirit of enterprise is diffused throughout the several states, *annual fairs* should be held.—As soon as the county associations are organized and in active operation, then the several state legislatures should be called upon to grant pecuniary aid to creature and sustain pattern farms. All new enterprises in agriculture should also receive the fostering protection of the state government. What would the burthen of the expenditure of a few thousand dollars, by each state, to promote objects of real agricultural utility, be compared with the sum of blessings which would flow from such outlays?—Money judiciously placed for the advancement of such objects, would be prolific of good to entire communities; for there is nothing more certain than this—that all such public appropriations of the means of a state, in their good effects and benefits, encompass every class of society; for though they may be, in the first instance, bounties bestowed to the tillers of the earth, ultimately every portion of the community reap in common with them the advantages flowing from them.

Several years since, some of the eastern states granted bounties to encourage the culture of silk, and the consequence has been, that the wisdom of those measures are to be seen in the rapid advance which it has made there, it being admitted on all hands that in the New England states, it is very far ahead of the rest of the country, and this too notwithstanding these states are by no means as well adapted by *location*, as any of the middle or southern states for that culture. Should not these facts awaken a spirit of inquiry in the minds of the entire farming communities of the rest of the country?—Should it not inspire them with feelings of emulation, and the desire to husband and protect their interests? If we are asked how this is to be brought about, we reply—that where it is desirable to obtain the patronage of the legislature, those who are clothed with representative trusts must be made to feel certain, that what is asked will be popular with the people. If this fact be conceded, and we think it cannot be denied, then we say, that every man engaged in the cultivation of the earth must move in the premises. Let meetings be not only called, but *attended*—let the rich and the poor go to them—for all are deeply interested in their results—and prove by the display of *numerical* strength, tha *numbers* are ready to back the prayers which may be made. In this, as in all other popular governments, it is absolutely necessary to demonstrate, that what is asked for, is so asked by *majorities*; for after all the representative should have his *warrant* for his action. Give him *that*, and you will find but few possessing hardihood enough to resist calls which come thus supported before them.

It is not sufficient that, in many of our legislative bodies, *committees* are annually appointed "*on Agriculture*"—if those committees be not formally approached by the people, they will do nothing, and for the very good and sufficient reason, that *nothing* is asked of them. If you require them to do some substantial good, you must appear before them in a shape and form that they will both understand and appreciate. The difficulties under which agriculture rests must be stated and remedies pointed out. When these things are properly done, we may expect to see such legislative action as every friend of the cause will rejoice at. But till they are, it is futile to hope, that lesislative bodies will move in behalf of the agriculture of the country. Agriculture is the first interest of every country, but if it expects to be respected according to its merits, it must show its hands—its members one and all must move in solid columns, and put their shoulders to the wheels, and then if they call on Hercules, he will most assuredly help them.—*Balt. Farmer.*

Silk-Worm Rearing Aperatus.

At the recent annual meeting of the French Central Agricultural Society, the report on the attempts of M. Camille Beauvais to introduce the rearing of silk-worms into the north of France excited the greatest share of attention. After several years spent in experiments, he has at length succeeded, by the aid of the system of ventilation of M. Darcet in overcoming the principal difficulty—the obtaining an equable temperature, and a constant succession of fresh air for the breeding rooms; the result is an

increase of thirty one per cent, in the produce of the cocoons. If the improvement could be universally introduced, therefore the production of France would soon be equal to its consumption; but M. Darcet's apparatus is not applicable to every locality. The great bulk of French silk is made in places not specially set apart for silk-worms; the object occupies, during the six weeks devoted to its rearing, a part of the dwelling of the family among, rich and poor, sometimes barns or out-houses, in which the open coal-fire keeps up the requisite heat, and at the same time assists in the ventilation. It often happens that the breeding succeeds better in an open barn than in closer situations, on account of the air being oftener changed; where such is the case, the apparatus of M. Darcet will hardly come into use, although in the end it is probable that the system of M. Camille Beauvais will be brought to bear. According to the glowing anticipations of the Agricultural Society, this system, combined with the information which one of M. Beauvais' pupils has sailed to China, "the land of silk," expressly to obtain, and with the light to be thrown on the subject by a Chinese work which M. Stanislaus Julien is about to translate, will sooner or later relieve France from the heavy burden of seventy-five millions of francs which she is now obliged to pay to Italy and Turkey for the importation of an article so necessary to her most important manufactures.—*Mechanics Magazine.*

Valuable Communication on the Culture of Wheat.

BOSTON, Aug. 22d, 1837.

T. G. FESSENDEN, Esq.—*Dear Sir*—I send you an extract of a letter from James Ronaldson of Philadelphia to the Hon. Daniel Webster, in which he says, "I will take the liberty of submitting to your consideration a practice that it may be said is universal in the northern part of Britain in the sowing of wheat; there it was resorted to as a means to prevent the smut in wheat; and it has perfectly answered that purpose.

All seed wheat is treated after one or other of the following modes:

A brine is prepared by putting common salt into water until the brine has strength to float an egg. The wheat, by some farmers is put into this pickle, and the light grains are skimmed off and thrown aside; other farmers put the wheat on the barn floor, and sprinkle the brine over it with a bunch of straw, or a broom, turning the wheat backward and forward until every grain of the wheat is wetted; this is the most expeditious way but is considered somewhat slovenly; the grain is then dried by shifting slaked lime over it, and turning over the mass; it is then sown in the usual way. There is always an anxiety to have all that has been 'pickled' sown on the same day; another process is to employ chamberlye in place of the salt pickle, and the manner of using it is the same as that of the salt brine.

I presume that this last material will be most efficacious when it has had an age sufficient to form volatile alkali.

Permit me to recommend the process to your attention. I advise making the experiment; be assured it can do no ill.

In cases where the sowing of wheat has been delayed until late in the season, whether from necessity, or for the purpose of escaping the depredations of the fly, a portion or all the manure should be spread over the surface of the land after the wheat has been sown: this portion of the manure becomes the nurser and protector of the young plants, whose roots are not acted on by the frost before they have time to reach the ploughed in manure; consequently this ploughed in manure is of no service to them, and they perish from hunger and cold."

If the foregoing is any thing new, or you think it worth publishing for the advantage of Agriculture, please give it a place. Yours, truly,

N. E. Farmer.] T. FLETCHER.

Indian Corn.

The New Haven Herald says:—"We have passed our observation upon the markets of N. York and Philadelphia, within a few days. Among other remarkable productions, we noticed several stalks of Indian Corn, each of which had seven separate ears upon it, and one had eight. This was of a peculiar species, the seed having been procured by Mr. H. L. Ellsworth, while Indian Commissioner at the "Far West."

We suspect the editor of the New Haven Herald is in error in stating that "this was of a peculiar species, the seed having been procured by Mr. H. L. Ellsworth while Indian Commissioner at the 'Far West.'" Our opinion is, that it is the *Baden corn*, and instead of being procured at the "Far West," was procured by Mr. Ellsworth of that excellent old pattern of Maryland Farmers, Thomas N. Baden, of Prince George's county, in this state. For the introduction of it to the notice of the agriculturists of our counfry, Mr. Ellsworth deserves great credit and for one we tender to him our most grateful homage. It was through him we were induced to cultivate it, and judging from present appearances, we are of opinion that there is no other variety of corn that can compare with it, either in yield of grain or fodder.—*Farmer and Gardener.*

Three Chickens from one Egg.

Mr. Joseph A. Wilkins, of Long Island, who raises fowls for the New York market, has made us a present of a very fine, well grown young rooster and two pullets, all of which he assured us were the produce of a single egg. He remarked to us that double eggs or such as produce two chickens a-piece, are very common on his farm, where the hens are well fed, and 'live,' to use his own expression 'like fighting cocks." But a triple egg, he said, he had never seen before. It was a famous old biddy of his that, early in the spring, produced the one that yielded the three chickens. It was the first egg she had laid for three months; and was nearly three times the length of a common egg.

The chickens had no sooner burst the shell, than they were marked by tying a red string around each of their legs, to distinguish them from the other twelve chickens of the same brood. These strings they have continued to wear up to this time; so that there is no manner of doubt but what the identical three fine birds constituting our present, are the identical three that came out of the triple egg above mentioned.

The two pullets are of a beautiful milk white color, with yellow legs and neat single comb. The rooster is of various colors, glossy neck and tail feathers, brown legs, and proud double comb.

Mr. Wilkins is seriously of opinion that, by proper training and feeding, he can cause any or all of his hens to lay double, triple, and even quadrnple eggs. But, however that may be, we very much question whether even the editor of the Commercial Advertiser, the New Haven Herald, or the United States Gazette, in the multitude of rarities that fell to their share, can boast a present of more peculiar rarity than the one with which we have been honored by the worthy and enterprising producer, Mr. Wilkins. Long life to his galinary, say we. May he live a thousand years, and every year give us occasion to acknowledge the receipt of a similar favor. —*N. Y. Transcript.*

Extraordinary Rapidity in the Growth of a Cucumber.

A few days since, a bet of £5 was made with Mr. Ely Allen, late gardener to the Rev. M. G. Edgar, and who now resides at Whitton, that he could not produce by his system of culture, a cucumber twenty inches in length, in the space of eight days from the time of setting the blossom. The wager was accepted, and within five hours of the period named, as choice and handsome a fruit as was ever seen, and in length twenty one inches, was cut from the vine. This extraordinary specimen has this week been exhibited in the window of Mr. Wild, Fruiterer, Tavern-street, and excited the admiration of all who viewed it. It ought to be mentioned that no lining was used, and that the frame in which it was grown was of the commonest description, and not the better for its wear.—*Suffolk Chronicle..*

Fine Sheep for sale.

25 FULL Blood Saxon,
100 full blood Merino.
50 superior Bucks
100 Lambs, cross bloods.
300 Ewes, do. do.
300 Weathers, in fine condition.

The cross bloods are good Sheep and heavy fleece. The Merino and Saxon are equal to any sheep that can be produced. A credit can be given if required.

LEONARD THOMPSON.
East Bloomfield, Ont. co., Sept. 1837. sep9-f3t

Improved Stock.

THE subscriber has now for sale at his farm, 3½ miles west of the city of Albany, the following choice animals.

Durham Short Horns.

4 Bulls of the Improved Durham Short Horns, from 4 months to 7 years old.
6 Cows and Heifers, from 1 to 11 years old.

Sheep.

8 Pure South Down Tup Lambs.
4 do. Hampshire do. do.
6 Hampshire, crossed with the Bakewell.
1 yearling South Down.
1 do. Hampshire do.
3 do. Bakewell do.
2 Two year old do.
20 Bakewell Ewes.
8 do. do. yearlings.
9 Ewe Lambs, crossed with the Hampshire.
7 Selected Merino Bucks, descended from the stock imported by the late Col. Humphrey of Connecticut.

Applications per mail, [post paid,] will be punctually attended to. CALEB N. BEMENT.
Three Hills Farm, near Albany, Aug. 30, 1837. f6w

Berkshire & Lincolnshire Pigs for sale.

I HAVE a considerable number of late Spring and Summer Berkshire Pigs, crossed with the Lincolnshire, for sale at Whitney's Distillery in the city of Rochester. The character of the Berkshire breed is somewhat known in this country. I believe the Lincolnshire is but very little, if any. I consider the above cross superior to any breed of hogs in America, far before the *China* or any cross with them, which are nothing more nor less than our *little* short coarse-haired grass breed. I have a pig of the above breed that was four months old the 20th of this month. It was put in a pen alone seven weeks ago, it has been well attended to, the result is that the pig gained from 9 to 11 pounds per week.

P. S The Lincolnshire breed was imported by Gov. Maitland of Upper Canada. AMOS SAWYER.
Rochester, Aug. 26, 1837. aug 28-17tr3t

ELECTION NOTICE.—*Sheriff's Office, Monroe County, Rochester, August 8th*, 1837.—A General Election is to be held in the county of Monroe on the 6th, 7th and 8th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed. ELIAS POND, Sheriff.

State of New-York, Secretary's Office, Albany, August 1st, 1837.—Sir: I hereby give you notice that at the next General Election in this State to be held on the 6th, 7th and 8th days of November next, a Senator is to be chosen in the Eighth Senate District in the place of Albert H. Tracy, whose term of service will expire on the last day of December next.

JOHN A. DIX,
Secretary of State.

To the Sheriff of the County of Monroe.

N. B. The Inspectors of Election in the several towns in your county will give notice of the election of Members of Assembly, and for filling any vacancies in County offices which may exist. aug 8-arf

Valuable Works on Gardening.

THE YOUNG GARDENER'S ASSISTANT—containing practical directions for the cultivation of Vegetables, Fruits and Flowers. By T. Bridgeman, seedman and florist, New York—seventh edition, improved. Price $1.

THE FLORIST'S GUIDE—containing practical instructions for the cultivation of Flowers. By the same author. Price 37 1-2 cents.

THE KITCHEN GARDENER'S INSTRUCTER—containing ample directions for the cultivation of culinary vegetables, herbs, &c. By the same author. Price 37 1-2 cents.

For sale by REYNOLDS & BATEHAM,
May 20. Rochester Seed Store.

Fruit Trees For Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL. MOULSON.
apr 15-tf

Valuable Publications.

THE following valuable works are published by *D. K. Minor* and *G. C. Schaffer*, 30 Wall-street, New-York, to whom all orders should be addressed:

New York Farmer, and American Gardeners' Magazine,—published in semi-monthly parts of 16 pages, at Three Dollars per annum, in advance.

Rail Road Journal, and Advocate of Internal Improvements—published once a week, in a large octavo form of 16 pages at five dollars per annum, in advance.

Mechanics' Magazine, and Journal of the Mechanics' Institute—published and forwarded, in weekly sheets of 16 pages, or monthly parts of 64 pages, if desired, at three dollars per annum, in advance.

Transactions of the Institution of Civil Engineers of Great Britain—Republication, in six parts. This work is from the pens of the most eminent Engineers in Great Britain. Price three dollars per copy, or five dollars for two copies; it can be sent by mail to any part of the country. The English copy, from which this is printed, cost ten dollars, and others were sold for the same by the importers. There will be about forty pages of Engravings, neatly done on wood.

Also, Pambour on Locomotion; Van de Graaff on Rail Road Curves; Nicholson's Abridged Treatise on Architecture, with over 40 pages of Engravings; and Views of the Thames Tunnell.

From the N Y. Star.

AMERICAN ANTIQUITIES.—The discoveries in Mexico, Central and South America, and, indeed throughout the far west, are daily convincing the reflecting portion of our citizens, that what is called the new world, that continent which we had every reason to believe was first discovered a few hundred years ago, is in fact coeval with the old world, and has been peopled by a race of great and warlike men from the East, who built splendid Cities, cherished the arts, and who, like those of Greece and Rome, had also their rise, progress and downfall. We have, however, the history of the old world, authenticated from the earliest periods. We have still in existence the monuments of the arts referred to by historians more than three thousand years ago. In America, however we have the splendid works of antiquity - the Pyramids and Temples—the Symbols of Egypt and Persia—the broken columns—the Triglyphs and Metopes—the ancient military roads and military stations, but *their history* remains yet to be written—the hands that reared them, the nations that inhabited them, and the period of their erection are yet to be discovered by our countrymen, and we cannot doubt in reference to the spirit and enterprise, the genius and perseverance of Americans, that we shall yet have amongst us our Bruces, Niebuhrs, Burckhardts, Champollions, &c. &c.

It is now several years since our attention was directed to this subject, from reading a correspondence which had taken place between Dr. Corroy, of Tobasco, and Dr. Mitchell, of this City, which was subsequently kept up by Dr. Ackerly, who prepared and read a very interesting paper on American Antiquities before the Lyceum of Natural History in 1833.

Doctor Corroy has been for many years engaged in making researches among the ruins of the famous city of Palenque, in collecting materials for history and forming a museum of idols, symbolic sculpture, papyrus, &c. &c. Del Rio, in referring to the antiquities called by the Spaniards *casas piedras*, or stone houses, speaks of an extraordinary ruin in Yucatan, twenty leagues south of the city of Merida. "One of these," says Del Rio, "a large building, has withstood the ravages of time, and still exists in good preservation. The natives give it the name of *Okmutal*. It stands on an eminence of twenty yards in height, and measures *two hundred yards* on *each* facade!! The apartments, the exterior corridor, the pillars with figures in *medio relievo*, are decorated with serpents, lizards, &c. formed in stucco. Besides these, are statues of men with palms in their hands, in the act of beating drums and dancing, resembling in every respect those observable in the buildings at Palenque."—Del Rio was a Spanish Captain of Artillery, who as far back as 1786, visited Central America, and made the most interesting discoveries of ancient temples, aqueducts, statues, hieroglyphics, &c. &c., drawings of all which he made, which, together with his report to the Spanish government, from jealous and suspicious motives, were concealed from the world until the Mexican revolution, when Signor Cabrera discovered the papers, and pursued the inquiries.

It is Cabrera's opinion, and there seems to be no doubt of its accuracy, that these extraordinary temples and palaces had their origin from the Carthagenians—that they visited America before the Christian Era, and that the first colony sent to America by them, was previous to the first Punic war, which commenced in the 490th year of Rome, and the 256th year before Christ, and that they established the Kingdom of Anahuac at some period during the first Punic war. Professor Rafinesque has long been engaged in pursuing this enquiry, and in his work contends that there were negroes in America before the discovery by Columbus. His researches together with Waldeck, Doctor Corroy and others, promise the most interesting results. Our object at present is to call the attention of the Library Committee of Congress to the fact, that Lord Kingsborough has published a splendid work on the ruins of Central America, Mexico and Peru, and particularly the ruins known as Tultucan, principally Pyramids Aqueducts, Viaducts, &c. The cost of this great work is a little beyond the ordinary means of private individuals, about 600 dollars, but it is of the first importance that Congress should have a copy in the Library, and, indeed if possible, to authorize a proper commission to institute enquiries into these extraordinary reliques of antiquity, found in a country supposed to have been discovered only a few hundred years. It will not be long before Mexico and Central America will be visited by travelers with as much avidity as Egypt, Turkey and Greece.

INDIAN RELICS.—A gentleman of Boston, now in Peru, has lately sent home some interesting relics, consisting of several mummies and skulls of the inhabitants of that country, before it was subjugated by Pizarro. Two of these mummies are adults, male and female. They are merely swathed with some thicknesses of a coarse but well-made woollen cloth, which appears to have been saturated with nitre, or some other antiseptic material. The flesh, however, is nearly all decomposed, leaving the hair, the vestments, the ornaments, and various articles, in a most fresh and perfect state. In the folds of the cloths which were wrapped around the female, were found a little bag filled with shells, probably the coin with which she was to pay her passage to the land of spirits—a bag, or reticule, containing a number of ringlets of different kinds of horn, and a quantity of red and black paint. Several needles, ingeniously manufactured from thorns, and threaded—a comb of a singular construction, with the hair sticking to it, as if it had been lately used—and a piece of cloth containing within many folds another enclosing a piece of woollen yarn, curiously knotted—probably the "knotted cord" of that people, and which may contain a brief biographical sketch of the individual, for aught we know. The head of the man was covered with a handsome cap, ingeniously manufactured from a strong and durable cloth. He also had in the folds of the envelope, a few shells, &c., and near him were found his bow and arrows. These mummies appear to have been deposited in excavations in the earth, and to have been surrounded at a little distance with dry sand. These relics exhibit an advancement in the civilized arts, to a degree absolutely astonishing. The clothes and cords, of various textures and kinds, show that they possessed no contemptible skill in the manufacturing arts. A number of articles of pottery, ingeniously wrought, well burnt, and ornamented with a species of enamelling, were also deposited in these tombs. The skulls which accompany these mummies, are about ten or twelve, and are exceedingly interesting to the Phrenologist. They were taken from the burial places of the ancient Peruvians, and furnish convincing proof that *two races of human beings*, with *characteristics differing from each other*, once inhabited that country. One race evidently possessing good intellectual faculties, and considerable moral worth. The other approximated towards the brute creation, & could have manifested but a modicum of intellectual or moral principle—but being exceedingly cowardly and cunning. Indeed from their skulls, we might suppose this class of Peruvians to have been the Yahoos of Dean Swift—and they seem to have been well organized for drudges and slaves.

OUR COUNTRY.—From a long article headed 'Our Country,' descriptive of its immense resources and rapid progress, published in the Portland Sketch Book, we extract the hereinunder.

"Let him stand on the levee at New Orleans, and count the number and the tiers of American vessels that there lie, four, five and six thick, on its long embankment. Let him hear the puff, puff, puff, of the high pressure steamboats, that come sweeping in almost every hour, perhaps from a port two thousand miles off, from the then frozen winter of the north, to the full burning summer of the south—all inland navigation; fleets of them under his eye—splendid boats, too, many of them, as the world can show; with the elegant rooms, neat berths, spacious saloons, and a costly piano, it may be—so that travelers of both sexes can dance or sing their way to Louisville, as if they were on a party of pleasure. Let him survey all these, as they come in with products from the Red river, twelve hundred miles in one direction, or from Pitsburg, Pennsylvania, two thousand miles in another direction, from the western tributaries of the vast Mississippi, the thickets of the Arkansas or White river, from the muddy, far-reaching Missouri, and its hundreds of branches; and then in the east, from Illinois, the Ohio, and its numerous tributaries—such as the Tennessee, the Cumberland, or the meanest of which, such as the Sandy river, on the borders of Kentucky—that will in a freshet fret and roar and dash as it were the father of floods, till it sinks into nothing when embosomed in the greater stream, and there acknowledges its own insignificance. Let him see "the Broad Horns," the adventurous flat-boats of western waters, on which—frail bark!—the darling backwoodsman sallies forth from the Wabash, or rivers hundreds of miles above, on a voyage of Atlantic distance, with hogs, horses, oxen and cattle of all kinds on board; corn, flour, wheat—all the products of rich western land; and let him see them too, as he rides the strong current of the Mississippi, as if the woods on which he floated was realizing the fable of the Nymphs of Ida--goddesses, instead of pines."

WONDERFUL SQUIRREL HUNT.—This extraordinary sport took place near Fishing Creek, Tyler county, Virginia, beyond the Alleghany mountains, about two weeks ago. Two parties assembled, numbering 30 each and upon a bet of a dinner for the whole company, set out for their respective neighborhoods, to make a trial of their skill in that most delightful of all sports—hunting. At the end of the second day, we believe, they returned to head quarters, to make report of their achievements to their respective commanders. After all the scalps had been counted, and fair calculations made, the results proved as follows, viz: for one party 6076! for the other, 7014! Making in all upwards of 13000 squirrels, which had been killed and scalped in *two days* by sixty men!!! —*N. Y. Star.*

Vineyard in Lyons.

Those who are inclined to the opinion that our soil and climate are not adapted to the successful cultivation of a great variety of choice wine and table grapes, had better look for themselves at the vineyard cultivated by Samuel Hecox, Esq., in this village, and they will be satisfied of their error.—The vineyard lies on the eastern slope of a hill of easy ascent, and covers an acre of ground. The vines are set in rows, at twelve feet distance each way, and are each sustained by a separate trellis about six feet in height; they are literally loaded with large and beautiful clusters of tempting grapes.—It makes one's mouth water to think how delicious they will be, when they are fully ripe.

Among the varieties of grapes cultivated by Mr. Hecox are the following—Black Scuppernong, Catawba, Sweetwater, Grey Burgundy, White Seedless Corinth, Muscade, Red Swiss, Orwiesburg, Petit Rauscheling, Frankenthal, Millers Burgundy, Bullet Grape, Denniston's Fragrant, Tokay, Isabella, Elsingburgh, Bland's Virginia and Golden Chasselas—tho' the vineyard above mentioned is confined chiefly to a small number of the hardy kinds. We are highly gratified to witness the success attending this experiment. Our citizens can never know what capabilities our comparatively new country possesses to produce the choice fruits of the earth, unless men of enterprise, capital, skill and taste, will take the trouble to ascertain by actual experiments. The process and results of all such successful undertakings should be carefully noted and commended to the favorable notice of the cultivators of the soil throughout the land.—*Lyons Argus.*

A Boston gentleman has authorised the Sentinel to offer a premium of ONE HUNDRED DOLLARS, to be given to the person who shall succeed in inventing a machine that will be successful in cleaning the side walks, whether by horse or hand power, immediately after a snow storm. Competitors for the premium will have to exhibit their machines at the fair of the Mechanic Association, which is to be held in Faneuil Hall in the middle of September. *Competition is invited from abroad.*

The New Haven Herald describes a land Turtle, lately found in Cheshire, marked on the under shell 1747, with the initials M. T. It is supposed to have been the property of Moses Tuttle, who died in Cheshire about fifty years ago. The turtle after being exhibited at the N. Haven Museum, is to be returned to Cheshire.